REMARKS

Claims 1-6, 8-11, 13-21 and 23 are pending. Claim 1 was amended. No claims were canceled, added, or withdrawn.

Applicant appreciated the opportunity to discuss the outstanding rejections with the Examiner during the February 05, 2007 telephone interview. In view of the progress made during this telephone interview, and in view of the following remarks, reconsideration and withdrawal of the outstanding rejections and allowance of the pending subject matter is respectfully requested.

35 USC §112 Rejection

Claim 9 stands rejected under 35 USC §112, second paragraph. Claim 9 has been amended to change "The computing device" to "The system". Withdrawal of the 35 USC §112, second paragraph, rejection of claim 9 is respectfully requested.

35 USC §103 Rejections

Claims 1-6, 8-11, 13-21 and 23 stand rejected under 35 USC §103(a) as being unpatentable over US patent serial no. 6,609,161 to Young in view of Applicant Admitted Prior Art (AAPA). For purposes of evaluating these rejections, features of claim 1 are presented for exemplary discussion.

Claim 1 recites:

> *"A method implemented by a computer system for managing a run queue comprising a first plurality of* ***threads sorted with respect to one another based on thread priority****, the method comprising:*

in a deterministic amount of time equivalent to an amount of time to insert a single thread into the run queue, associating a second plurality of threads that is priority sorted with the run queue in a manner that maintains a priority based scheduling semantic of the run queue; and

executing respective ones of the threads in view of thread priority" (emphasis added).

In addressing these claimed features, the Action argues that Young's invention that appends SCSI command blocks to a queue on a first-and first-out basis determines thread priority, and therefore the feature of "threads sorted with respect to one another based on thread priority", as the claim requires, is described. Reasons why this argument is prima facie false were already presented in the response to the June 28 Office Action. These arguments are not repeated verbatim herein but are incorporated by reference. Applicant respectfully requests the Office to reconsider those arguments in view of the following comments.

The last paragraph on page 1 of the Background section describes that it is well known in the art that in first-in first-out thread scheduling there is no such thing as a thread with different priorities than another thread. This is because **all threads have a same equal priority**. Thus, SCSI commands scheduled for execution on a first-in first-out basis are already totally ordered when they are put into the execution queue. Thus, it is necessarily true in the system of Young that threads cannot be sorted "**with respect to one another** based on thread priority" (emphasis added). It is well-known that when something is sorted with respect to

something else, then both items are necessarily evaluated with respect to one another to determine where to order or position each particular item with respect to the other item. Young in no way evaluates SCSI command block priority to determine whether the SCSI command block should be sorted into a different position in the execution queue. Accordingly, although it can be fairly said that Young teaches that order of arrival using first-in first-out scheduling also determines order of SCSI command execution, this does not mean that Young sorts SCSI commands "with respect to one another based on thread priority", as the claim requires.

The Action also argues that "applicant failed to explain why it would not have been obvious to one of ordinary skill in the art at the time the invention was made, to have modified the teaching of Young with the teaching of AAPA to extend the functionality of Young's multi-dimensional queue and applied [sic] it to the scheduling of different tasks (such as threads)." Applicant respectfully disagrees. As indicated in the response to the June 28 Office Action, Applicant clearly described why a person of ordinary skill in the art at the time of invention would have reasonably ascertained that Young could not be modified with the teaching of AAPA being relied on by the Action. Without repeating these arguments verbatim, Applicant clearly outlined that Young cannot be properly combined with AAPA to arrive at the features of claims 1-6, 8-11, 13-21 and 23 as the Action suggests, because the features of each reference would destroy the basis on which the other reference is based. That is, the teachings of those sections of AAPA upon which the Office is relying will destroy Young, and vice versa. In view of the above, a person of ordinary skill in the art would have reasonably

ascertained that Young could not be properly combined with AAPA because such would result in destroying that on which the reference is based.

For instance, AAPA teaches that the **thread priority semantic is "essential** for time-critical responses required in high-performance embedded applications [that] must deliver responses within specified time parameters **in real-time**" (page 1, lines 11-15, emphasis added). As described in the Background section, it is well known in the art that real-time thread scheduling priority operations are enforced by the operating system such that **high**-priority threads are executed before **low**-priority threads. In first-in first-out thread scheduling, there is no such thing as a thread with higher priority than another thread. This is because **all threads have the same priority** when they are scheduled on a first-in first-out basis. Thus, there is absolutely no possibility in a first-in first-out system of Young's to sort SCSI command blocks with respect to one another based on SCSI command block priority.

Additionally, Young's system, which depends on executing SCSI command blocks in a first-in first-out basis, would be destroyed if those SCSI command blocks sorted in the execution based on some semantic that would change their relative ordering to one another to something not dictated by the order in which they were received into the execution queue. Moreover, a real-time operating system's priority-based thread scheduling semantic, as described by AAPA, would be destroyed if implemented as the Action suggests by executing threads using Young's first-in first-out thread execution queue. By virtue of the fact that combining Young with the AAPA's teachings would result in the destruction of

that upon which Young is based, a person of ordinary skill in the art would clearly not have combined the two teachings.

Since, references cannot be properly combined with each other when such would result in destroying that on which the invention of one of the references is based, the Action has not presented a prima-facie case of obviousness of claims 1-6, 8-11, 13-21 and 23. Withdrawal of the 35 USC §103(a) rejection of claim 1-6, 8-11, 13-21 and 23 is requested.

Conclusion

The present application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass the application to issue. To avoid the expensive and time-consuming appeal process, and if in the opinion of the Examiner, a telephone conference would expedite the prosecution of the application; the Examiner is invited to again discuss this application with the undersigned attorney.

Respectfully Submitted,

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